

What is claimed is:

1. A flow cytometric method for measuring dendritic cell function in whole blood, comprising:

- (a) contacting a whole blood sample with a dendritic cell activator;
- (b) adding to said sample a plurality of dendritic cell-distinguishing antibodies and at least one cytokine-specific antibody;
- (c) flow cytometrically assaying said sample for the binding of said cytokine-specific antibody by at least one distinguishable DC subset.

2. The method of claim 1, wherein said adding itself comprises, in order:

- (b1) adding to said sample a plurality of dendritic cell-distinguishing antibodies;
- (b2) lysing erythrocytes in said sample;
- (b3) permeabilizing nucleated cells in said sample; and then
- (b4) adding to said sample at least one cytokine-specific antibody.

3. The method of claim 2, wherein said sample is contacted with Brefeldin A during said DC activator contacting step.

4. The method of claim 3, wherein said dendritic cell-distinguishing antibodies include a plurality of antibodies, each of which is specific for a non-dendritic cell lineage.

5. The method of claim 4, wherein each of said non-dendritic cell lineage-specific antibodies is specific

for a different one of the proteins drawn from the group consisting of: CD3, CD14, CD16, CD19, CD20, and CD56.

6. The method of claim 5, wherein each of said non-dendritic cell lineage-specific antibodies is conjugated to the identical fluorophore.

7. The method of claim 5, wherein said fluorophore is FITC.

8. The method of claim 3, wherein said dendritic cell-distinguishing antibodies include an antibody specific for HLA-DR.

9. The method of claim 3, wherein said dendritic cell-distinguishing antibodies include an antibody specific for CD4.

10. The method of claim 3, wherein said dendritic cell-distinguishing antibodies includes at least one antibody that binds differentially to different dendritic cell subsets.

11. The method of claim 10, wherein said differential antibody is specific for CD11c.

12. The method of claim 10, wherein said differential antibody is specific for CD123.

13. The method of claim 3, wherein said cytokine-specific antibody is specific for an interleukin.

14. The method of claim 3, wherein said cytokine-specific antibody is specific for a cytokine receptor.

15. The method of claim 3, wherein said cytokine-specific antibody is specific for TNF- $\alpha$ .

16. The method of claim 3, wherein said cytokine-specific antibody is specific for an interferon.

17. A flow cytometric method for measuring dendritic cell function in whole blood, comprising:

(a) contacting a whole blood sample with a dendritic cell activator;

(b) adding to said sample a plurality of dendritic cell-distinguishing antibodies and at least one antibody specific for a dendritic cell surface marker indicative of activation; and then

(c) flow cytometrically assaying said sample for the binding of said antibody specific for said dendritic cell surface activation marker by at least one distinguishable DC subset.

18. The method of claim 17, wherein said surface marker indicative of dendritic cell activation is selected from the group consisting of CD25, CD40, CD80, CD83, CD86, CMRF-44, CMRF-56, and HLA-DQ.